

## Clipping, June 20, 1920

### **New York Times. June 20 th 1920. TELLS HOW TO COOL ROOMS IN SUMMER**

Dr. Alexander Graham Bell Has a Plan to Cheat the Thermometer Out of 35 Degrees.

### **INSTALLS PLANT IN ATTIC**

From Refrigerated Loft Asbestos Pipe Conducts Cooled Air to Lower Apartment.

You heat your house in Winter; why not cool it in Summer? This question occurred to Dr. Alexander Graham Bell when the Washington, D. C., weather became extremely hot last season. Former President Taft; when he was in the White House, had a refrigerating device put in the offices, which has since fallen into disuse, but Dr. Bell believes he got better results from his "home-made" cooling arrangement at his Connecticut Avenue home in Washington.

In a communication to the National Geographic Society Dr. Bell describes how he tricked the thermometer out of some 35 degrees.

"We go up to the arctic, regions and heat our houses and live," Dr. Bell explains. "We go down to the tropics and die. I have found one radical defect in the construction of our houses that absolutely precludes the possibility of cooling them to any great degree. You will readily understand the difficulty when you remember that cold air is heavier than warm air. You can take a bucket of cold air, for example, and carry it about in the Summer time and not spill a drop; but if you make a hole in the bottom of your basket, then, of course, the cold air will run out.

"I began to think that it might be possible to apply the bucket principle to at least one room in my Washington home, and thus secure a place of retreat in the Summer time. It

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seemed to be advisable, to close up all openings near the bottom of the room to prevent the escape of cold air and open the windows at the top to let the heated air out of the room.

"Now, it so happens that I have in the basement of my home a swimming tank, and it occurred to me that since this tank holds water it should certainly hold cold air; so I turned the water out to study the situation. The tank seemed to be damp and the sides felt wet and slimy.

"I reflected, however, that the condensation of moisture resulted from the fact that the sides of the tank were cooler than the air admitted. Water vapor will not condense on anything that is warmer than itself, and it occurred to me that if I introduced air that was very much colder than I wanted to use, then it would be warming up in the tank and becoming drier all the time. It would not deposit moisture on the sides and would actually absorb the moisture there.

"I therefore provided a refrigerator, in which were placed large blocks of ice covered with salt. This was placed in another room at a higher elevation than the tank, and a pipe covered with asbestos paper was employed to lead the cold air into the tank.

"The first effect was the drying of the walls, and then I felt the level of the cold air gradually rising. At last it came over my head. The tank was full and I found myself immersed in cool air. I felt so cool and comfortable that it seemed difficult to believe that Washington stood sizzling outside. I climbed up the ladder in the swimming tank until my head was above the surface, and then found myself breathing a hot, damp, muggy atmosphere. I therefore speedily retreated into the tank, where I was perfectly cool and comfortable.

"Guided by this experience, I tried another experiment in my house. I put the refrigerator in the attic and led the cold air downward through a pipe covered with asbestos into one

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of the rooms of the house. The doors were kept shut and the windows were opened at the top. The temperature in that room was perfectly comfortable, about 65 degrees.

“Some years ago the papers were speaking of an ice plant that had been installed in the White House and congratulated the President, then Mr. Taft, upon a temperature of only 80 degrees when the thermometer showed 100 degrees outside. Under similar conditions I enjoyed in my house a temperature of 65 degrees (the ideal temperature), with a delicious feeling of freshness in the air.”